

Advanced scientific instruments disguised as toys™

PITCH VIDEO INVESTOR PANEL



demonpore.com

Technology Entertainment Hardware Games Hard Tech

OVERVIEW UPDATES 1 WHAT PEOPLE SAY 25 ASK QUESTION 17

Highlights

- 1 Introducing the demonpore 64™, the world's first molecular gaming console™
- 2 Priced at \$99, the demonpore 64™ will be the first single-molecule sensor for a mass consumer market
- 3 Play games with signals produced by REAL cells and molecules that YOU put inside the console
- 4 Game play lets you become a Player Scientist™, taking part in vast distributed experiments
- 5 Together we'll form the Global Molecular Mind™, the most powerful scientific instrument of all time
- 6 We are THE pioneers of Molecular Reality™ (MR)—a world-changing concept as big as VR or AR.
- 7 Unique disruptive entry into global \$100B+ molecular sensing market and \$1T biotech services market

Our Team



Kent Kemmish CEO and Founder

Invented demonpores (mechanical nanopores). Discovered first enzymes for longevity pioneer Aubrey de Grey's LysoSENS project. Early team of Synthego, now a unicorn/premiere supplier of CRISPR reagents globally.

Chose our approach after more than a decade of rigorous work developing approaches to molecular sensing. Founder became a scientist with the goal of curing diseases, and realized early on in his career that much better tools were needed.



George Church Chairman of the Scientific Advisory Board

Professor at Harvard & MIT, early organizer of the Human Genome Project. Nanopore and sequencing tech pioneer++. Coauthored 460 papers, 105 patent publications & one book (Regenesis).



Aubrey de Grey Scientific Advisor

Spearheading the global crusade to cure aging. CSO of sens.org

[SEE MORE](#)

Demonpore™ is So Mind-Blowing, People Thought It Was an April Fools' Joke

by Kent Kemmish(tree) April 5, 2021

When people first heard about us on social media in March, with April 1st coincidentally just around the corner, some people were certain our startup was a prank.

We're demonpore, inc., and in the month of March, we started to tell people about the demonpore 64™, the world's first molecular gaming console™.

Introducing the **demonpore 64™**

The world's first **Molecular Gaming Console™**

The demonpore 64™ is a revolutionary molecular sensing tool powered by nanopores that you can use at home to explore and play with the world.



Play with **real cells and molecules** that YOU put into the console.

Soon, one of the world's leading scientists, Prof. George Church of Harvard/MIT, who happens to be on our Scientific Advisory Board, tweeted about us:



There were many very excited, positive responses to George's tweet—thousands of people came to our website, and hundreds signed up on the waitlist. There were, however, some people who were *quite certain* our whole project was an elaborate prank. The most supremely confident of these earned a special place in our future corporate history:



In the meantime, Agingdoc1 has very graciously recanted...

The response was understandable. And we were kind of asking for it: after all,

we could have called it something less provocative, and we could have described it in more measured terms.

But, if we did that, would anyone notice? Would anyone think new thoughts—and feel inspired?

After all, by the end of the coming decade, we want everyone on the planet to have easy access to advanced molecular sensing tools. And we're currently on a planet where very few people actually know what that means—or why it's one of the most important things we'll ever do as a species. If our marketing can make people think, if it can get people to pay attention, if it can inspire some while freaking out others... then we've won the early skirmishes for mindshare. *The epic quest has begun!*

And LOTS of people thought new thoughts and felt inspired. As a startup, we went through Y Combinator, the world's most exclusive and prestigious startup accelerator. Y Combinator's motto is "Make Something People Want". We're certainly doing that!

Is this "something people want"?

Yes, indeed, it is.

We asked 100s of people: **What excites you most about the demonpore 64?**

It's crazy. I like crazy. What an awesome idea! The blatant weirdness

This is literally the coolest citizen science idea I have ever heard of and I want to take part so badly!

Science at scale, in the home, and gamified -what's not to love?

This is the coolest freaking thing I have ever seen.

Is it possible not to be excited about exploring Molecular Reality?

I think demonpore 64 is the coolest thing this century. It's going to allow regular people to help push science forward faster.

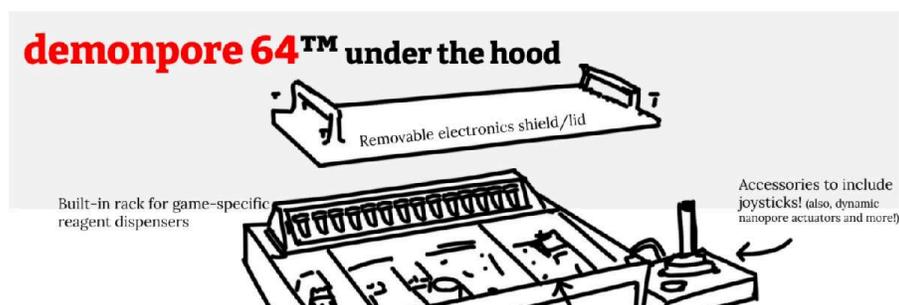
This is no see before.

These were *typical* replies. Our very favorite, from someone who may not be a native English speaker: "This is no see before." Exactly right, and eloquent!

We're Not Just Selling a Product—We're on an Epic Quest!

And we're bringing along our customers, our investors, and eventually every person with molecules inside of them on that quest.

We're not just selling a physical object, for sure, but here's a quick look "under the hood" of the flagship product:



Mini syringe pump allows control over pressure and fluid motion through pores

Switch between nanopores in <20 seconds with our patent-pending nanopore reservoir cartridge.

Our electronics platform, Teabiscuits™, allows sensing of picoamp to nanoamp currents at 125 KHz bandwidth—suitable for detecting everything from single molecules up to large multicellular aggregates transiting the smallest nanopores up to large multi-micron pores.

We are still shuffling things around, and most of what you see outlined here is in a state of redesign and flux. The alpha version will be available to a few hundred people this summer, but the final product will ship in late 2022.

As cool as we think this is, what's even cooler is what will happen when we put a bunch of them together:

Join millions of other Player Scientists™ in multi-year coordinated campaigns.

Imagine the power of millions of advanced molecular sensors working together on the same experiments.

A global network of consoles becomes the **most powerful scientific instrument of all time.**

The Global Molecular Mind™.

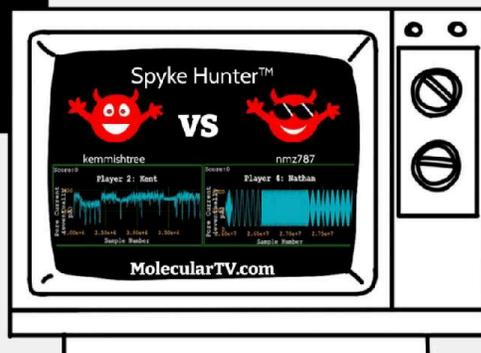


Our over-the-top statement “most powerful scientific instrument of all time” probably added to the April Fools’ vibe. But we stand by it!

The truth: even a few hundred of these devices gathering data—exactly our goal this summer!—will have power exceeding any commercially available technology based on solid-state nanopores. And the full product launch—aiming for the equivalent of just 0.1% of the 2 billion global video gamers—would mean *millions* of instruments—something worth calling the Global Molecular Mind™!

And we’ve already built and tested the on-ramp to that mind—what we call MolecularTV™:

Our gaming experience only requires the console itself and MolecularTV.com where games will be hosted by researchers and game designers.



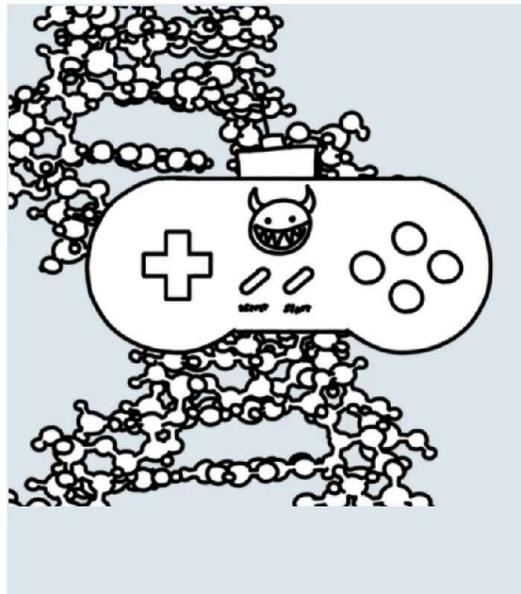
(Actual data from demonpore 64™)

This is, non-obviously, one of the coolest things about what we're building. The MolecularTV™ paradigm solves a big problem: installing software for scientific instruments can be a huge pain. Being able to just connect to the internet and do your science from a website is impressive all by itself.

If you think of the demonpore 64™ as a neuron in the brain of the Global Molecular Mind™, then MolecularTV™ is how that neuron fires.

Our First Molecular Games

But what will we, as the consciousness of the Global Molecular Mind™, *think* about? Well, first, we will learn about Molecular Reality™ by *playing*. And every game we'll play together is a MISSION:



Our games are designed, developed, and guided by our Scientific Advisory Board with longer-term, fundamental scientific goals and biotech innovation in mind.

Early launch Molecular Games™ have four things in common:

1. Players are rewarded for putting stuff through nanopores (duh)
2. Players are rewarded for providing the most useful data through choices in reagents, pores, and electrofluidic control settings
3. All games are played socially—either in competition or working together
4. All the games evolve as the science evolves—and every gaming session brings new content and new challenges

And here are some of the first games we'll play this summer with the alpha launch of the demonpore 64™:



...while back on Earth, IRL, we develop a safe means of visualizing and serotyping individual viruses such as SARS-CoV-2.



A series of virology-focused installments beginning in 2021 will lead to the development of a global early warning detection system for novel viruses and strains...

...which in turn will lead to earlier containment, faster modelling and therapy development, and a deeper understanding of viral evolution and structural biology.



Meanwhile, on this planet, playing with your Raindrop Planet™ allows us to monitor the presence of microbes, particulate, pollutants, and nutrients in our environment.

Long-term play will help predict weather patterns, identify microbe populations across the world, discover airborne pathogens, monitor plant population health, and quantify the effects of climate change.

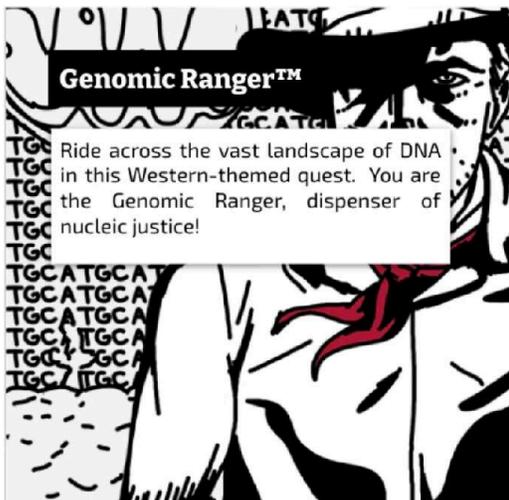


...while IRL you're exploring the cellular and molecular mysteries of poop and the universe of gut microbes that hop a ride on it out the chute.

Your poop, your pets' poop, your family's poop...

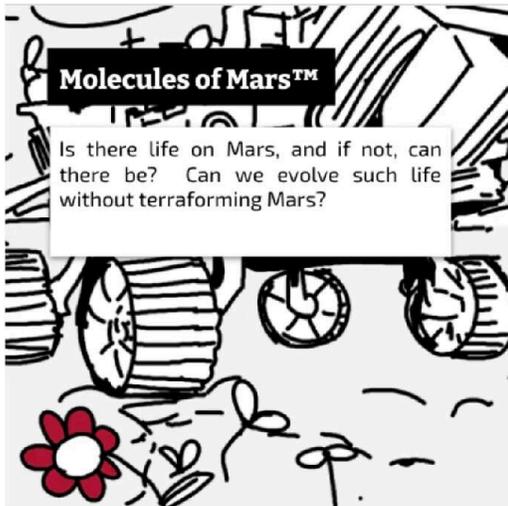
Discover new predictors of disease and response to therapies and nutritional interventions.

A thousand questions float to the top as you explore the sacred stinky!



...while back here in the 2020s, you're developing methods for seeing structural variations in genomes and for sequencing DNA.

Explore the histone code, chromosome structure, expression profiles, and telomeres in your own actual cells, with implications for biomedicine as vast as the great desert vistas of the Old West...



Play with real Martian soil mimics and help develop solid-state sensing methods to pick out electronic signatures of bioorganic molecules in intermediates as we turn Mars from Red to Green to Blue.



Do play with your food!
 ... and learn to cook for real!

By doing so you will help monitor food supplies, discover and quantify nutrients in our foods, discover new forms of molecular gastronomy and correlates between taste, smell, and satiety, and pave the way towards global food security and fighting malnutrition!



...while in all-too-real life, age-related diseases kill 100,000 humans beings every day...

Look at age-related damage in your own cells and develop methods to track and fix the damage.

Push population-scale understanding of aging mechanisms, and, ultimately, develop molecular and cellular therapies for rejuvenation.

The Dragon Tyrant Must Die!!!!

Ready Player Scientist™ One!

A summary:

- **WHAT** we're building: the demonpore 64™, the Global Molecular Mind™, MolecularTV™, and a bunch of molecular games™ and Molecular Reality™ entertainment experiences to tie it all together and make it easy and fun.
- **WHY** we're building it: because cure all diseases and save the world. And

- **WHY we're building it:** because, cure all diseases and save the world. And have fun doing it. What more do you need?
- **WHEN we're building it:** we're about to make our alpha launch available to select participants and we'll play the first molecular games at a scale of hundreds of players this summer. By investing \$100 or more you'll get a console when we do the full product launch next year.
- **WHERE we're building it:** mostly in Silicon Valley but with individual contributors in Japan, Arizona, Seattle, Indonesia, Toronto, Boston, and Tulsa, Oklahoma.
- **HOW we're building it:** with a lot of love, talent, know-how, the ~\$1.2M in capital we've raised since our inception, a lot of cool new intellectual property, and, longer-term, the support of people like you—people who can envision this coming to fruition and want to open your pocketbooks to add fuel to our creative technological fire.

NOW, two final things—first, you've come this far, and we haven't addressed the name issue. Here's why we're called **demonpore™**:

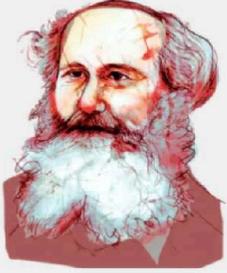
MAXWELL'S DEMON

So... What's with the Name?

Biotech Clickbait!

DEMONPORE™ commemorates physicist James Clerk Maxwell's thought experiment about a magical molecular gatekeeper who violates the Second Law of Thermodynamics. Maxwell's demon **opens and closes a 'pore'** between two chambers to allow only faster-than-average particles to enter. Over time, one chamber will heat up while the other cools down—decreasing entropy.





J.
C.

M
A
X
W
E
L
L

Incidentally, other work by Maxwell inspired the Coulter Counter—the predecessor of modern nanopore-based sensing devices.

We began by developing nanopores that could open and close, just like the "pore" in this cartoon.

...And the Final Thought...

There's a future where our grand project succeeds, and one where it doesn't. Think of yourself as a world-line navigator—vote with your cash to determine which future comes to pass!

The Future: With & Without Us

demonpore™

MASS MARKET

- Personal universal molecular sensing
- Single decentralized platform
- Massive experimental coordination and transparency
- Privacy → controlled at the source
- Stops spread of bioterrorism & pandemics
- Decouple the number of people with a PhD-level understanding of molecules and cells



IVORY TOWER & INDUSTRY

- Professional use mainly

STATUS Q

- Professional use mainly
- Centralized and proprietary
- Fleets of expensive instruments
- Privacy → hoped for
- Bioterrorism & pandemics spread

